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# 700 MHZ CONSTRUCTION AND REPORTING REQUIREMENTS AND RELATED DEADLINES

By this Public Notice, the Wireless Telecommunications Bureau (Bureau) reminds certain 700 MHz (Lower A Block, B Block, and E Block, and Upper C Block) licensees of upcoming filing deadlines for construction notifications and performance status reports. The Bureau also updates the process for filing electronic maps in the shapefile format.

### **Background**

In 2007 in the 700 MHz Second Report and Order, the Commission established rules governing wireless licenses in the 700 MHz Band that, among other things, established interim and end-of-term construction benchmarks and status reporting requirements. These rules require Lower 700 MHz A, B, and E Block licensees to provide service sufficient to cover 35 percent of the geographic area of their licenses within four years, and 70 percent of this area within ten years (the license term). Upper 700 MHz C Block licensees are required to provide reliable service sufficient to cover 40 percent of the population of their license areas within four years and 75 percent of the population within ten years (the license term). For licensees that fail to meet the applicable interim benchmark, the rules specified that the license term would be reduced by two years and that the end-of-term benchmark must be met within eight years.

As part of its efforts to promote interoperability in the Lower 700 MHz Band, the Commission released the *Interoperability Report and Order* in 2013, which extended the interim construction deadline for Lower 700 MHz A and B Block licensees and removed the interim construction deadline for certain A Block licensees adjacent to Channel 51 operations.<sup>4</sup> The Commission also extended the interim and final deadlines for E Block licensees and permitted a showing of population coverage, rather than geographic coverage.<sup>5</sup> In addition, the Commission waived the deadline to file the second status report for Lower 700 MHz A and B Block licensees (other than A Block licensees required to protect Channel 51 operations) and extended the deadline for Lower 700 MHz E Block licensees.<sup>6</sup> The existing deadlines are described in detail below.

<sup>&</sup>lt;sup>1</sup> See Service Rules for 698-746, 747-762, and 777-792 MHz Bands, Second Report and Order, 22 FCC Rcd 15289 (2007) (700 MHz Second Report and Order).

<sup>&</sup>lt;sup>2</sup> 47 C.F.R. §§ 27.14(g)-(h).

 $<sup>^{3}</sup>$  Id. at 27.14(g)(1), (h)(1). In cases where the end-of-term benchmark is not met, portions of the license where service is not provided terminate automatically. Id. at 27.14 (g)(2), (h)(2).

<sup>&</sup>lt;sup>4</sup> See Promoting Interoperability in the 700 MHz Commercial Spectrum, Report and Order and Order of Proposed Modification, 28 FCC Rcd 15122, 15151-52, para. 65 (2013) (Interoperability Report and Order).

<sup>&</sup>lt;sup>5</sup> *Id.* at 15147-49, paras. 56-59.

<sup>&</sup>lt;sup>6</sup> *Id.* at 15149, 15152-53, paras. 59, 66.

# **Lower 700 MHz Construction Notification Deadlines**

Lower 700 MHz A and B Block licensees. As established by the 700 MHz Second Report and Order and extended by the Interoperability Report and Order, Lower 700 MHz A and B Block licensees (other than licensees subject to a waiver of the interim construction benchmark deadline due to Channel 51 interference protection requirements) must meet their interim construction deadline by **December 13, 2016**. As established by the 700 MHz Second Report and Order, all Lower 700 MHz A and B Block licensees who meet the interim construction requirement must meet their final construction deadline by **June 13, 2019**. If a licensee fails to meet the interim construction benchmark, the term of its license is reduced by two years and the licensee must meet the final construction deadline by **June 13, 2017**.

Lower 700 MHz A Block licensees required to protect Channel 51 licensees. In the Interoperability Report and Order, the Commission waived the interim construction deadline for Lower 700 MHz A Block licensees that must protect Channel 51 licensees. These licensees must meet the final construction deadline by June 13, 2019.

Upper 700 MHz C Block licensees. Upper 700 MHz C Block licensees are subject to the original filing deadlines as established in the 700 MHz Second Report and Order. <sup>12</sup> The interim construction deadline was **June 13, 2013**, and the final construction deadline is **June 13, 2019**. <sup>13</sup> However, if a licensee fails to meet the interim construction benchmark, the term of its license is reduced by two years and the licensee must meet its final construction deadline by **June 13, 2017**. <sup>14</sup>

Lower 700 MHz E Block licensees. As established by the 700 MHz Second Report and Order and extended by the Interoperability Report and Order, Lower 700 MHz E Block licensees must meet their interim construction deadline by March 7, 2017, and must meet their final construction deadline by March 7, 2021. As established by the Interoperability Report and Order, if a licensee fails to meet the interim construction benchmark, the term of its license is reduced by one year and the licensee must meet the final construction deadline by March 7, 2020. 16

We remind licensees that notifications of construction are due within 15 days of the construction deadline. 17

<sup>&</sup>lt;sup>7</sup> 700 MHz Second Report and Order, 22 FCC Rcd at 15348, 15349, paras. 153, 157; Interoperability Report and Order, 28 FCC Rcd at 15151, para. 64.

<sup>&</sup>lt;sup>8</sup> 700 MHz Second Report and Order, 22 FCC Rcd at 15293-94, 15349, paras. 6, 157.

<sup>&</sup>lt;sup>9</sup> *Id.* at 15345, 15348-49, paras. 153, 147.

<sup>&</sup>lt;sup>10</sup> Interoperability Report and Order, 28 FCC Rcd at 15151-52, para. 65.

<sup>&</sup>lt;sup>11</sup> 47 C.F.R. § 27.14(h).

<sup>&</sup>lt;sup>12</sup> 700 MHz Second Report and Order, 22 FCC Rcd at 15351, para. 162.

<sup>&</sup>lt;sup>13</sup> 47 C.F.R. § 27.14(h).

<sup>&</sup>lt;sup>14</sup> Id. at § 27.14(h)(1); 700 MHz Second Report and Order, 22 FCC Rcd at 15351, para. 163.

<sup>&</sup>lt;sup>15</sup> Interoperability Report and Order, 28 FCC Rcd at 15147-48, para. 56.

<sup>&</sup>lt;sup>16</sup> *Id.* at 15148, para. 58.

<sup>&</sup>lt;sup>17</sup> See 47 C.F.R. § 1.946(d).

### **Procedure for Public Comment on 700 MHz Construction Notifications**

In the 700 MHz Second Report and Order, the Commission stated that "the public will be given an opportunity to review and comment" on construction notifications filed by certain 700 MHz licensees. 18 The public may use the procedure specified in this Public Notice to comment on construction notifications filed by 700 MHz licensees holding the following authorizations: 1. Economic Area (EA) authorizations for A Block in the 698-704 MHz and 728-734 MHz bands; 2. Cellular Market Area (CMA) authorizations for B Block in the 704-710 MHz and 734-740 MHz bands; 3. EA authorizations for Block E in the 722-728 MHz band; or 4. Regional Economic Area Grouping (REAG) authorizations for Block C in the 746-757 MHz and 776-787 MHz bands.

Comment Period. Consistent with the 700 MHz Second Report and Order, the Bureau will review each construction notification and any related comments prior to making a determination regarding the notification. <sup>19</sup> Specifically, the Bureau will place applicable 700 MHz construction notifications on its weekly Market-Based Applications Accepted for Filing Public Notice. Interested parties will then be permitted to file comments, which must be filed no later than 30 days after the Public Notice release date.

Filing Procedure. Parties must file comments electronically through the Bureau's website at http://wireless.fcc.gov/uls. After opening the Bureau's Universal Licensing System (ULS) webpage (http:// wireless.fcc.gov/uls), select "Submit a Pleading" located under the quick link options (under "Systems") located on the bottom of the page. Upon reaching the Non-docketed Pleadings page, select the "700 MHz Construction Notification Comment" option from the Pleading Type drop-down menu, and follow the subsequent instructions to submit a comment.

Ex Parte Status. The Bureau seeks to facilitate communications regarding 700 MHz construction notifications between Commission staff and interested parties. We find that, consistent with section 1.1200(a) of the Commission's rules, the public interest will be served by designating staff review of 700 MHz construction notifications and any related public comments as "exempt" under section 1.1204 of the Commission's rules.<sup>20</sup>

# **Lower 700 MHz Second Status Report Deadlines**

Lower 700 MHz A and B Block licensees. Lower 700 MHz A and B Block licensees (other than licensees subject to a waiver of the interim construction benchmark deadline due to Channel 51 interference protection requirements, as described above) are not required to file a second status report regarding a licensee's efforts to meet performance requirements. This requirement was waived in the Interoperability Report and Order because, as a result of the extended interim construction deadline, licensees will file similar information in their construction notifications shortly after the original deadline for the second status reports.<sup>21</sup>

Lower 700 MHz A Block licensees required to protect Channel 51 licensees. Lower 700 MHz A Block licensees required to protect Channel 51 licensees must file their second status report no later than

<sup>&</sup>lt;sup>18</sup> 700 MHz Second Report and Order, 22 FCC Rcd at 15353, para. 169.

<sup>&</sup>lt;sup>19</sup> *Id*.

<sup>&</sup>lt;sup>20</sup> 47 C.F.R. §§ 1.1200(a), 1.1204.

<sup>&</sup>lt;sup>21</sup> Interoperability Report and Order, 28 FCC Rcd at 15152-53, para. 66.

**June 13, 2016** and no sooner than 30 days prior.<sup>22</sup> Since these licensees are not required to file interim construction notifications, this will allow the Commission to monitor their buildout progress.<sup>23</sup>

Upper 700 MHz C Block licensees. Upper 700 MHz C Block licensees are subject to the original filing deadlines as established in the 700 MHz Second Report and Order and must file their second status report no later than **June 13, 2016** and no sooner than 30 days prior.<sup>24</sup>

Lower 700 MHz E Block licensees. As extended by the Interoperability Report and Order, Lower 700 MHz E Block licensees must file their second status report by March 7, 2019.<sup>25</sup>

### **Content of Second Status Reports**

For licensees that are required to file a second status report, the report must include the date the license term commenced and the steps the licensee will take or has taken towards timely meeting its construction deadlines, including:

- The technology or technologies being deployed (e.g., LTE), or that the licensee plans to deploy.
- The service(s) being provided (e.g., mobile voice, mobile data, fixed voice, fixed data), or the service(s) the licensee intends to provide.
- The areas where the licensee is providing service. 26

Licensees may illustrate the areas where they are providing service in narrative form or with Portable Document Format (PDF) maps, noting which license is associated with service in a particular area.

The Bureau recognizes that many licensees hold multiple 700 MHz licenses. For administrative ease, we encourage such licensees to file a consolidated status report. This consolidated status report must be filed with each license and must provide the required information on a license-by-license basis.

# **Updates to Procedures for Filing Shapefile Maps**

On October 16, 2015 the Bureau released a public notice establishing the format for filing electronic maps associated with certain 700 MHz licensee construction notifications. <sup>27</sup> The Public Notice also identified the documentation to be filed with the 700 MHz construction notifications. Specifically, licensees must file electronic maps in shapefile format in addition to a PDF map and a technical narrative. The Bureau makes the following technical changes to the 700 MHz Electronic Maps Public Notice:

- 1. We remove the "LAT\_DD" and "LON\_DD" fields from **only** the Signal Coverage Attributes table.
- 2. We make two changes to the "Standards" section. First, we have updated the URL in Standard #1 for accessing template and market based boundary files. Second, we have

<sup>23</sup> Interoperability Report and Order, 28 FCC Rcd at 15153-53, para. 66.

<sup>25</sup> Interoperability Report and Order, 28 FCC Rcd at 15149, para. 59.

<sup>&</sup>lt;sup>22</sup> 47 C.F.R. § 27.14(1).

<sup>&</sup>lt;sup>24</sup> 47 C.F.R. § 27.14(1).

<sup>&</sup>lt;sup>26</sup> See 47 C.F.R. § 27.14(1); 700 MHz Second Report and Order, 22 FCC Rcd at 15352, para. 165.

<sup>&</sup>lt;sup>27</sup> Wireless Telecommunications Bureau Establishes Electronic Map Format for Covered 700 MHz Band License Construction Notifications, Public Notice, 30 FCC Rcd 11407 (WTB 2015) (700 MHz Electronic Maps Public Notice).

updated the resolution requirement for coverage boundaries from 10 meters to 100 meters in Standard #5. The updated standards are listed below.

- 1. The templates and market based boundary files related to the 700 MHz Band service can be found at <a href="https://www.fcc.gov/general/700-mhz-construction-notification-requirements">https://www.fcc.gov/general/700-mhz-construction-notification-requirements</a>.
- 5. The coverage boundaries must have a resolution of 100 meters (approximately three arcseconds) or better. An arc-second represents the distance of latitude or longitude traversed on the earth's surface while traveling one second (1/3600th of a degree). See ESRI Explanation of Measuring in Arc-Seconds. Three arc-seconds is a common resolution of terrain databases. See USGS Standards for Digital Elevation Models, Part 1-General, at 1-2, 1-4.

An updated description of the filing procedure and the required contents, including the above technical changes, for a shapefile can be found in Attachment A of this Public Notice. Shapefile maps must comply with the requirements listed in this Public Notice<sup>28</sup> and then must be converted into a Zipfile format prior to attaching to the application in the ULS attachment utility.

Requests for Confidentiality. To the extent that a licensee believes that its shapefile map should be afforded confidential treatment by the Commission, Licensees may file a request for confidentiality of shapefile maps via ULS. Such requests must set forth in an attachment to the notification of construction the licensee's reasons for withholding the information from public inspection pursuant to section 0.459(b) of the Commission's rules. Specifically, when attaching a Zip-file formatted shapefile map in the ULS attachment utility, use the drop-down box to select the "Confidential GIS Map Files" option. Use the "Browse" button and select the relevant zipped GIS map files. Provide a brief description of these files in the "Description" field. Click the "Add Attachment" button to upload and attach the zipped map files to the construction notification.

Pursuant to section 0.459 of the Commission's rules, parties seeking confidential treatment of a portion of a filing must submit a redacted version (in electronic format), or an affidavit stating that it is impossible to submit a redacted document.<sup>30</sup> For purposes of meeting this section, when a licensee seeks confidentiality of a shapefile map, the PDF version of the map will be considered a redacted version, required for public inspection, of the shapefile.

Questions regarding this Public Notice may be directed to Amanda Huetinck, Attorney Advisor, Wireless Telecommunications Bureau, Mobility Division, at (202) 418-7090 or amanda.huetinck@fcc.gov.

By the Chief, Mobility Division, Wireless Telecommunications Bureau.

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<sup>&</sup>lt;sup>28</sup> Supra Attachment A.

<sup>&</sup>lt;sup>29</sup> See 47 C.F.R. § 0.459(b).

<sup>&</sup>lt;sup>30</sup> See 47 C.F.R. § 0.459(a)(2).

# Attachment A Shapefile Contents and Submission Process (Effective May 19, 2016)

# **Shapefile Map Submission**

Covered 700 MHz Band Licensees must submit shapefiles with construction notifications in the format (including the content) described in this attachment.

Covered 700 MHz Band Licensees must attach electronically filed GIS Map Files<sup>31</sup> to the construction notification in the Universal Licensing System (ULS) using compatible software and the map file format. Shapefile maps must comply with the requirements listed in this attachment, and then must be converted into a Zip-file format prior to attaching to the application.<sup>32</sup> After a map is properly formatted, in the ULS attachment utility, use the drop-down box to select the "GIS Map Files" option. Use the "Browse" button and select the relevant zipped GIS map files. Provide a brief description of these files in the "Description" field. Click the "Add Attachment" button to upload the zipped map files to attach the map to the construction notification.

# **Shapefile Format**

The map files must be submitted in shapefile format and include the content described in this attachment. The table structure and naming convention must be submitted as outlined below, and at a minimum, the following "Types" must be included in the submission:

Signal Coverage: The minimum acceptable received signal level used to provide signal

coverage.

Format: Polygons

File Naming: Market Block Callsign Signal Coverage MapDate – i.e.,

CMAxxx A ABCD123 signal coverage 20150101<sup>33</sup>

**Excluded Federal/State Government Lands:** Federal/State Government Lands excluded from the geographic service area (if the licensee chooses to exclude).

Format: Polygons

File Naming: Market Block Callsign Ex Fed State Land MapDate – i.e.,

CMAxxx A ABCD123 ex fed state land 20150101

**Transmitter Site(s):** Transmitter site(s) that contribute to the signal coverage within the relevant geographic service area.

Format: Points

File Naming: Market Block Callsign Transmit Sites MapDate –

i.e., CMAxxx A ABCD123 transmit sites 20150101

<sup>&</sup>lt;sup>31</sup> A shapefile is a type of GIS Map File.

<sup>&</sup>lt;sup>32</sup> The Zip-file format is a data compression and archive format available in the public domain.

<sup>&</sup>lt;sup>33</sup> If an ESRI product is used to produce the map files, please add region and point to the feature class (CMAxxx\_A\_ABCD123\_signal\_coverage\_20150101\_region and CMAxxx\_A\_ABCD123\_transmit\_sites\_2015\_01\_01\_point). If MapInfo is used to produce the map files (prior to submitting via ULS), label as above. The Universal Translator will add region and point to the end of the file name.

# **Data Fields**

The following data fields must accompany **each** polygon/point on the map. The field names must appear in the shapefile attribute table exactly as shown below:

**Signal Coverage Attributes** 

Field Name	Contents	Description	Type	Example
LICENSEE	Licensee Name	Name of the entity providing coverage in this area. <sup>34</sup>	text (200)	Eastern Wireless
FRN	FCC Registration Number	A 10-digit number that is assigned to a business or individual used to identify the registrant's business dealings with the FCC.	text (12)	0002505283
CALL_SIGN	Call Sign	A combination of letters and numbers that identify an FCC license.	text (10)	WQJU644
RS	Radio Service Code	A unique 2-letter code used in ULS to designate each wireless radio service. The valid codes are:  WU – 700 MHz Upper Band (Block C)  WX – 700 MHz Guard Band WY – 700 MHz Lower Band (Blocks A, B, & E)  WZ – 700 MHz Lower Band (Blocks C, D).	text (2)	WY
BLOCK	Channel Block	A group of channels assigned together, not individually.	text (4)	A
MARKET	Market Designation	A standard geographic area used by the FCC for administrative convenience in the licensing of systems.	text (6)	CMA323
MAP_DATE	Map Date	The date the map was created.	date	06/15/2015
TYPE	Type of GIS File	The type of GIS file. The valid code is: SC= Signal Coverage.	text (2)	SC

<sup>&</sup>lt;sup>34</sup> Substitute all special characters and whitespaces with underscores. There should be no leading or trailing whitespaces.

Field Name	Contents	Description	Type	Example
ТЕСН	Technology of Transmission	Code for the technology used for the provision of service. The valid codes are: 80 WCDMA/UMTS/HSPA 81 HSPA+ 82 EVDO/EVDO Rev A 83 LTE 84 WiMAX 85 CDMA 86 GSM 87 Analog 88 Other.	numeric (2)	81
MIN_DOWN	Minimum Advertised Downlink Target Data Rate	The minimum advertised downlink target data rate users should expect to receive in the coverage area, in Mbps. You may enter up to 3 places after the decimal ( <i>e.g.</i> , 768 kbps would be entered as 0.768).	numeric (6,3)	3
MIN_UP	Minimum Advertised Uplink Target Data Rate	The minimum advertised uplink target data rate users should expect to receive in the coverage area, in Mbps. You may enter up to 3 places after the decimal ( <i>e.g.</i> , 768 kbps would be entered as 0.768).	numeric (6,3)	0.768
COV_AREA	Coverage Area	The licensed area in sq miles covered with a reliable signal. Rounded to the nearest 100 <sup>th</sup> . For CMA & EA licenses only.	numeric (9,2)	1230.45
TOTAL_AREA	Total Area	The total licensed area in sq miles. Rounded to the nearest 100 <sup>th</sup> . For CMA & EA licenses only.	numeric (9,2)	2543.62
PCCOV_AREA	Percentage of Area Covered	Percent of area covered with a reliable signal. Rounded to the nearest 10 <sup>th</sup> .	numeric (4,1)	73.2
POP_COV	Population Covered	The 2010 population covered with a reliable signal. Per EA for REAG licenses only.	numeric (9)	54231
TOTAL_POP	Total Population	The total population of the market in which service is being provided using 2010 census. Per EA for REAG licenses only.	numeric (9)	79589
PCPOP_COV	Percentage of Population Covered	Percentage of 2010 population covered with a reliable signal. Rounded to the nearest 10 <sup>th</sup> .	numeric (4,1)	67.4

**Federal/State Government Land Attributes** 

Field Name	Contents	Description	Type	Example
LICENSEE	Licensee	Name of the entity providing	text (200)	Eastern
EDNI	Name	coverage in this area.	tout (12)	Wireless
FRN	FCC Pagistration	A 10-digit number that is	text (12)	0002505283
	Registration Number	assigned to a business or individual used to identify		
	TAILIDEI	the registrant's business		
		dealings with the FCC.		
CALL SIGN	Call Sign	A combination of letters and	text (10)	WQJU644
_	S	numbers that identify an		
		FCC license.		
RS	Radio Service	A unique 2-letter code used	text (2)	WY
	Code	in ULS to designate each		
		wireless radio service. The		
		valid codes are:		
		WU – 700 MHz Upper Band		
		(Block C)		
		WX – 700 MHz Guard Band		
		WY – 700 MHz Lower Band		
		(Blocks A, B, & E)		
		WZ – 700 MHz Lower Band		
BLOCK	Channel	(Blocks C, D) A group of channels assigned	text (4)	A
DLOCK	Block	together, not individually.	ιολί ( <del>1</del> )	$\Lambda$
MARKET	Market	A standard geographic area	text (6)	CMA323
HCIXL/I	Designation	used by the FCC for	10At (0)	C1411 1525
		administrative convenience		
		in the licensing of systems.		
MAP_DATE	Map Date	The date the map was	date	06/15/2015
_		created.		_
ГҮРЕ	Type of GIS	The type of GIS file. The	text (2)	F
	File	valid code is:		
		F=Federal Government		
		Land.		
		S=State Government Land.		
DES_NAME	Designation	The name of the Federal	text (200)	Navy DOD
	Name	and/or State government land		
CIC COLDOD	CIC Co	being excluded.	tout (200)	DO 4
GIS_SOURCE	GIS Source	The source of Federal and/or	text (200)	DOA
		State government lands being excluded.		
DAT_SOURCE	Date Source	The year of the source used	text (4)	2007
	Date Soulce	for Federal and/or State	юлі ( <del>4</del> )	2007
		government lands.		
GOV_AREA	Government	The Federal and/or State	numeric (10)	278
	Area	government land area in sq	numeric (10)	210
	1 11 Vu	miles being excluded from		
		the total market area. For		

# **Transmitter Site Attributes**

Field Name	Contents	Description	Type	Example
LICENSEE	Licensee	Name of the entity providing	text (200)	Eastern
-	Name	coverage in this area.		Wireless
FRN	FCC	A 10-digit number that is	text (12)	0002505283
	Registration	assigned to a business or		
	Number	individual used to identify the		
		registrant's business dealings		
		with the FCC.		
CALL_SIGN	Call Sign	A combination of letters and	text (10)	WQJU644
		numbers that identify an FCC		
	Dadia Carri	license.	tout (2)	
RS	Radio Service Code	A unique 2-letter code used in	text (2)	WY
	Code	ULS to designate each wireless radio service. The		
		valid codes are:		
		WU – 700 MHz Upper Band		
		(Block C)		
		WX – 700 MHz Guard Band		
		WY – 700 MHz Lower Band		
		(Blocks A, B, & E)		
		WZ – 700 MHz Lower Band		
		(Blocks C, D).		
BLOCK	Channel Block	A group of channels assigned	text (4)	A
		together, not individually.		
MARKET	Market	A standard geographic area	text (6)	CMA323
	Designation	used by the FCC for		
		administrative convenience in		
		the licensing of systems.		06/15/2015
MAP_DATE	Map Date	The date the map was created	date	06/15/2015
TYPE	Type of GIS	The type of GIS file. The	text (2)	T
	File	valid code is:		
	Latitude in	T=Transmitter Sites.  The latitude associated with	numorio (10.6)	45.567823
LAT_DD	Decimal	the polygon, point, or	numeric (10,6)	43.30/823
	Degrees	polyline.		
LON_DD	Longitude in	The longitude associated with	numeric (10,6)	-120.568234
	Decimal	the polygon, point, or	1101110110 (10,0)	-120.300234
	Degrees	polyline.		
	2051003	poijiiio.		

#### Standards

- 1. Templates and market based boundary files related to the 700 MHz Band service can be found at <a href="https://www.fcc.gov/general/700-mhz-construction-notification-requirements">https://www.fcc.gov/general/700-mhz-construction-notification-requirements</a>.
- 2. All map areas must be closed, non-overlapping polygons with a single, unique identifier. If available, run ESRI geoprocessing tool "Repair Geometry" before submitting the shapefile.
  - 3. The shapefile must have an assigned projection with an accompanying .prj file.
- 4. The shapefile must use WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere geographic coordinate system. If not available, then use WGS 1984.
- 5. The coverage boundaries must have a resolution of 100 meters (approximately three arcseconds) or better. An arc-second represents the distance of latitude or longitude traversed on the earth's surface while traveling one second (1/3600th of a degree). *See* ESRI Explanation of Measuring in Arc-Seconds. Three arc-seconds is a common resolution of terrain databases. *See* USGS Standards for Digital Elevation Models, Part 1-General, at 1-2, 1-4.
- 6. Shapefile must be submitted as a \*.zip file, which includes SHP, SHX, DBF, and PRJ files type. Multiple shapefiles can be combined into a single zip and uploaded via the attachment module with a program like WinZip or in Windows by selecting the files associated with a shapefile, right-clicking the files, then clicking "Send to" then "Compressed (zipped) folder."
- 7. In addition to the shapefile, each submitted \*.zip file must include metadata (XML file type) or a plain text "readme" file (TXT file type; the filename must be the same as the shapefile name) that contains a comprehensive explanation of the methodology employed to generate the map layer including any necessary assumptions and an accuracy assessment of the finished product. Although not required, FCC prefers to receive geospatial metadata in the ISO 191\*\* series standards, which includes ISO 19115 and ISO 19139 among others. See <a href="https://www.fgdc.gov/metadata/geospatial-metadata-tools">https://www.fgdc.gov/metadata/geospatial-metadata-tools</a>.

http://help.arcgis.com/en/arcgisdesktop/10.0/help/index.html#/Choosing\_a\_metadata\_style/003t000000 09000000. If metadata tools are not implemented, then please provide the following information along with the methodology: core library catalog elements such as Title, Abstract, and Publication Data; geographic elements such as Geographic Extent and Projection Information; and database elements such as Attribute Label Definitions and Attribute Domain Values.

# **Requests for Confidentiality**

Licensees may file a request for confidentiality of shapefile maps via ULS. Shapefile maps must comply with the requirements listed in this Public Notice and then must be converted into a Zip-file format prior to attaching to the application. After a map is properly formatted, in the ULS attachment utility, use the drop-down box to select the "Confidential GIS Map Files" option. Use the "Browse" button and select the relevant zipped GIS map files. Provide a brief description of these files in the "Description" field. Click the "Add Attachment" button to upload and attach the zipped map files to the construction notification.

Pursuant to section 0.459 of the Commission's rules, parties seeking confidential treatment of a portion of a filing must submit a redacted version (in electronic format), or an affidavit stating that it is impossible to submit a redacted document.<sup>35</sup> For purposes of meeting this section, when a licensee seeks

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<sup>&</sup>lt;sup>35</sup> See 47 C.F.R. § 0.459(a)(2).

confidentiality of a shapefile map, the PDF version of the map will be considered a redacted version, required for public inspection, of the shapefile.